1 November 2016

Call for submissions by the UN Special Rapporteur on Freedom of Expression

Study on freedom of expression and the telecommunications and internet access sector

Internet Society submission

Internet Society

Question addressed:

Please share information concerning the role of relevant standards and Internet governance bodies in protecting and promoting freedom of expression, and how that role may be improved.

Internet standards bodies

Focus on the Internet Engineering Task Force (IETF)

About the IETF

The Internet Engineering Task Force (IETF) is a "large open international community of network designers, operators, vendors, and researchers concerned with the evolution of the Internet architecture and the smooth operation of the Internet. It is open to any interested individual."[1]

The stated Mission of the IETF is to make the Internet work better by producing high quality, relevant technical documents that influence the way people design, use, and manage the Internet.[2]

The IETF is a community of engineers who invest time in contributing to voluntary Internet standards that may be implemented and deployed in networks around the world. The Internet Society (ISOC) is the organisational home of the IETF and supports it with funding and through programmes such as the ISOC fellowship to the IETF.

The IETF community has included individuals acting as network architects, protocol designers and developers since its inception. While these may be

[1] RFC 3935 : https://www.ietf.org/rfc/rfc3935.txt

[2] Idem

drawn primarily from industry, its technical community includes researchers, network operators, government employees, and interested members from civil society organizations. All IETF contributors participate in the work of the IETF as individuals. Participants are generally concerned with finding the best technical solutions to the issues facing the Internet, and they value technical principles which foster the Internet's well-being over narrower institutional allegiances.

There are many linkages between the IETF as a community, its work and freedom of expression, and acknowledging them is an important step to increase cooperation between technical and non-technical stakeholders. On the other hand, care must be taken not to attribute "intentions" and policy objectives to Internet standards where they do not exist. The community developing Internet standards will be most supportive of freedom of expression by remaining focussed on what they do best: making the Internet work better.

IETF's work as an enabler of freedom of expression

Back in the early 1970s, Internet pioneers crafted a set of protocols and designs for a networking architecture, enabling computer networks to talk to one another, regardless of frontiers. While core funding for the Internet's development originated from the US Department of Defense, early motivations for the creation of the Internet's underlying technologies were deeply rooted in the willingness to share information resulting from academic research between educational institutions.

The Internet is not a single global network: it is rather a network of autonomous networks, able to communicate with each other through common methods for interoperability. These common languages are Internet standards that provide a globally interoperable, unfragmented platform that enables people to "seek, receive and impart information regardless of frontiers". Without Internet standards such as the Internet Protocol (IP) and Transmission Control Protocol (TCP), we would only have isolated networks unable to exchange data with one another.

The IETF's work in developing Internet standards therefore acts as an enabler for a wide range of applications which may pertain to people's ability to express themselves online.

The IETF is an affirming partner of the OpenStand principles. OpenStand is a movement dedicated to promoting open and global technology standards[3]. One of the five OpenStand principles relates to the goal of collective empowerment, and in particular states that standards should "contribute to the creation of global communities, benefiting humanity". While this notion is up for interpretation by each SDO partner involved in OpenStand, it shows a commitment to community building, and indirectly freedom of expression, is fundamental to these groups.

In addition, it is important to consider the IETF's focus on security and privacy of communications across all its work and processes as an essential enabler for freedom of expression. For example, RFC 6973 offers guidance for developing privacy considerations for inclusion in protocol specifications, aiming to make designers, implementers, and users of Internet protocols aware of privacy-related design choices. Similarly, IETF work stemming from the identification of pervasive monitoring as an attack on the network (see RFC 7258) is relevant to the discussion about protecting freedom of expression, although not directly motivated by a concern with expression per se. Note that the term 'attack' used technically implies nothing about the motivation of the actor mounting the attack.
In the area of security, RFC 2223 section 9 states that "All RFCs must contain a section near the end of the document that discusses the security considerations of the protocol or procedures that are the main topic of the RFC".

Overall, there is growing sensitivity among IETF contributors to the notion that security, privacy and freedom of expression are complementary and mutually reinforcing elements rather than subjects to trade-off against each other.

[3] https://www.open-stand.org

Freedom of expression as part of the IETF's working process

The IETF Work Group Guidelines and Procedures statement (RFC 2418) offers insight into the importance of open participation and association from all in the standards work:

- *"There is no formal membership in the IETF. **Participation is open to all**. This participation may be by on-line contribution, attendance at face-to-face sessions, or both. Anyone from the Internet community who has the time and interest is urged to participate in IETF meetings and any of its on-line working group discussions. Participation is by individual technical contributors, rather than by formal representatives of organizations."*

From the IETF Mission Statement (RFC3935):

- *"**Open process** - any interested person can participate in the work, know what is being decided, and make his or her voice heard on the issue."*
- *"The Internet isn't value-neutral, and neither is the IETF. We want the Internet to be useful for communities that share our commitment to openness and fairness. We embrace technical concepts such as decentralized control, **edge-user empowerment** and sharing of resources, because those concepts resonate with the core values of the IETF community. These concepts have little to do with the technology that's possible, and **much to do with the technology that we choose to create**."*

Other statements, reinforced frequently both declaratively and in practice, demonstrate a commitment to freedom of expression, freedom of information, free flow of information and even to a right to be heard:

- *An individual (whether a participant in the relevant Working Group or not) may disagree with a Working Group recommendation based on his or her belief that either (a) his or **her own views** have not been adequately considered by the Working Group, or (b) the Working Group has made an incorrect technical choice which places the quality and/or integrity of the Working Group's product(s) in significant jeopardy.*

> RFC2026, section 6.5.1

- *[…] a specification undergoes a period of development and several iterations of review by the Internet community and revision based upon experience. […] They provide* ***ample opportunity for participation and comment*** *by all interested parties.*

> RFC2026, section 1.2

Trust and transparency go hand-in-hand:

While there have been many threats to the security and privacy of Internet users, tools for establishing and maintaining trust continue to evolve to meet them. Security upgrades to DNS (the Domain Name System) and BGP (the Border Gateway Protocol that knits together the Internet's backbone), for example, improve trust, as do end to end security, certificate–based authentication, and improved encryption. Trust is also enhanced by transparency in the open development of security protocols and practices.

Conclusion

Throughout its history, the IETF has focussed on developing open processes to standardise Internet technologies designed to sound network engineering principles. As described above, the IETF as a community and as a set of processes for documenting technology solutions has at its heart the principle of open participation and the goal of connectivity. In that sense **the work of the IETF has always been to enable interested parties to express their views about the technology, and to build technology that enables Internet-mediated expression to be as widely available as possible.** Explicit concerns with 'freedom of expression' have been rare but it is noticeable that, as access to the Internet and the uses to which it is put have grown, so the attention of the IETF community has increasingly been drawn towards concerns of privacy, security and human rights.

In the IETF, working groups must address privacy and security issues, and in the Internet Research Task Force (IRTF), the IETF's sister organisation, there is currently a research group chartered to expose the relation between protocols and human rights, with a focus on the rights to freedom of expression and freedom of assembly. As this work progresses it is to be hoped that the IETF community will continue to focus on engineering

excellence and open, inclusive processes, informed by a fuller appreciation for the impact of Internet technology on individuals and societies around the globe, and the need to be sensitive to human rights related concerns.

Additional references to work related to free expression/censorship at or about the IETF:

Human Rights and Internet Protocols: Comparing Processes and Principles: https://www.internetsociety.org/sites/default/files/Human%20Rights%20and%20Internet%20Protocols-%20Comparing%20Processes%20and%20Principles.pdf

Internet-draft: A Survey of Worldwide Censorship Techniques: https://tools.ietf.org/html/draft-hall-censorship-tech-04

RFC 7754: Technical Considerations for Internet Service Blocking and Filtering:
https://tools.ietf.org/html/rfc7754

IRTF Human Rights Protocol Considerations:
https://irtf.org/hrpc
https://github.com/nllz/IRTF-HRPC/blob/master/draft-research.md

RFC1746 - Ways to Define User Expectations – Informational
https://tools.ietf.org/html/rfc1746
(Note: identifies freedom of expression as an item (amongst others) that should be considered in the formation of acceptable use policies for internetworking services.)

RFC3271 - The Internet is for Everyone – Informational
https://www.ietf.org/rfc/rfc3271.txt
(Note: credo of Internet Society by Vint Cerf. Opposed to any attempt to stifle freedom of expression. "we must dedicate ourselves to keeping the network unrestricted, unfettered and unregulated. We must have the freedom to speak and the freedom to hear."